

REMARKS

The present amendment is submitted in response to the Non-Final Office Action mailed September 10, 2008. In view of the amendments above and the remarks to follow, reconsideration and allowance of this application are respectfully requested.

Status of Claims

Claims 1-17 remain in this application. Claims 1, 16 and 17 have been amended. No new matter has been added.

Rejections under 35 U.S.C. §112

In the Office Action, Claims 1-17 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claims 1, 16, and 17 stand rejected for reciting “allocating time slots to network links”, which is allegedly in error since time slots for use of a link is allocated to a connection path. Applicant has amended claims 1, 16 and 17 in a manner which is believed to overcome the objections.

Rejections under 35 U.S.C. §102(b)

In the Office Action, Claims 1, 16 and 17 stand rejected under 35 U.S.C. §102(b) Rijpkema et. al, (hereinafter Rijkpema) “Trade-offs in the design of a router with both guaranteed and best-effort services for networks on chip”, IEE Proc. Comput. Digit. Tech. Vol. 150, Sep. 2003. Applicant respectfully traverses the rejection.

It is axiomatic that anticipation of a claim under 35 U.S.C. §102(b) can be found only if the prior art reference discloses every element of the claim. See In re King 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co. 730 F. 2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

The cited portions of Rijpkema do not anticipate claim 1 because the cited portions of Rijpkema do not teach every element of claim 1. For example, the cited portions of Rijpkema do not disclose or suggest, “wherein each of said connection paths (C1-C12) employ at least one network link (L) for a required number of time slots, at least one time slot allocating unit (SA) for computing a link weight factor for at least one network link (L) in said connection path (C1-C12) as a function of at least one connection requirement for said at least one network link (L), for computing a connection path weight factor for at least one connection path (C1-C12) as a function of the computed link weight factor of at least one network link (L) in said connection path (C 1-C 12), and for allocating time slots to said computed connection path according to the computed connection path weight factors”, as in claim 1 (Emphasis Added). Applicant respectfully submits, in contrast to claim 1, the cited portions of Rijpkema disclose the operation of content free routing. See Rijpkema, page 297, section 4.1.2. Specifically, Rijpkema discloses, “a router uses a slot table to (a) avoid contentions on a link, (b) divide up bandwidth per link between connections, and (c) switch data to the correct output.” Rijpkema further discloses, “the assignment of slots to connections in the network is an optimization problem and is described in Section 4.3.3, Section 4.3.2 explains how slots are reserved in our network.” Section 4.3.2, entitled, “Programming Model”, discusses how guaranteed throughput GT connections are set up and torn down by means of special BE packets, called *system packets*, to avoid introducing additional commercial infrastructure. Rijpkema states, “a reconfiguration unit is treated as just another router. In this way, contention on the recognition unit is shifted to contention on the output port, which is resolved by a matrix scheduling algorithm.” (See Rijpkema, last paragraph, page 299). Matrix scheduling is described in Rijpkema at page 298 in Section 4.2.2. It states, the matrix scheduling problem can be modeled as a bipartite graph matching problem. The matching algorithm is iterative and one iteration has three stages, as illustrated in Fig. 6. There is no teaching or suggestion in Rijpkema of a slot

allocation (SA) unit (1) computing a link weight factor for at least one network link (L) as a function of at least one connection requirement or (2) computing a connection path weight factor for at least one connection path as a function of the computed link weight factor of at least one network link (L) in the connection path. However, Applicant respectfully submits, contention free routing based on matrix scheduling is different from computing a link weight factor for at least one network link (L) in said connection path (C1-C12) as a function of at least one connection requirement for said at least one network link (L), for computing a connection path weight factor for at least one connection path (C1-C12) as a function of the computed link weight factor of at least one network link (L) in said connection path (C1-C12), and for allocating time slots to said computed connection path according to the computed connection path weight factors”, as in claim 1. Hence, claim 1 is allowable.

Claims 2-15 depend from claim 1, which Applicants have shown to be allowable. Accordingly, claims 2-15 are also allowable, at least by virtue of their dependence from claim 1.

For a reference to anticipate a claim, the reference must disclose every element of the claim. The cited portions of Rijpkema do not anticipate claim 16 because the cited portions of Rijpkema do not teach every element of claim 16. For example, the cited portions of Rijpkema do not disclose or suggest, “computing a link weight factor for at least one network link (L) in said connection path (C1-C12) as a function of at least one connection requirement for said network links (L), computing a connection path weight factor for at least one connection path (C1-C12) as a function of the computed link weight factor of at least one network link (L) in a connection path (C1-C12), and allocating time slots to said computed connection path (C1-C12) according to the computed connection path weight factors, as recited in claim 16 (Emphasis Added). Instead, the cited portions of Rijpkema describe “the assignment of slots to connections

in the network as being an optimization problem that is resolved in accordance with a matrix scheduling algorithm, as described above. However, as noted above, contention free routing based on matrix scheduling is different from computing a link weight factor for at least one network link (L) in said connection path (C1-C12) as a function of at least one connection requirement for said at least one network link (L), for computing a connection path weight factor for at least one connection path (C1-C12) as a function of the computed link weight factor of at least one network link (L) in said connection path (C1-C12), and for allocating time slots to said computed connection path according to the computed connection path weight factors”, as recited in claim 16. Therefore, the cited portions of Rijpkema fail to disclose every element of claim 16. Hence, claim 16 is allowable.

For a reference to anticipate a claim, the reference must disclose every element of the claim. The cited portions of Rijpkema do not anticipate claim 17 because the cited portions of Rijpkema do not teach every element of claim 17. For example, the cited portions of Rijpkema do not disclose or suggest, “at least one time slot allocating unit (SA) for computing a link weight factor for at least one network link (L) in said connection path (C1-C12) as a function of at least one connection requirement for said at least one network link (L), for computing a connection path weight factor for at least one connection path (C1-C12) as a function of the computed link weight factor of at least one network link (L) in said connection path (C1-C12), and for allocating time slots to said computed connection path (C1-C12) according to the computed connection path weight factors”, as recited in claim 17. However, as noted above, contention free routing based on matrix scheduling is different from “at least one time slot allocating unit (SA) for computing a link weight factor for at least one network link (L) in said connection path (C1-C12) as a function of at least one connection requirement for said at least one network link (L), for computing a connection path weight factor for at least one connection path (C1-C12) as a function of the computed link weight factor of at least one

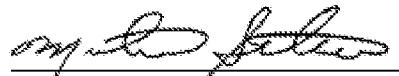
network link (L) in said connection path (C 1-C12), and for allocating time slots to said computed connection path (C1-C12) according to the computed connection path weight factors”, as recited in claim 17. Therefore, the cited portions of Rijpkema fail to disclose every element of claim 17. Hence, claim 17 is allowable.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1- 17 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Mike Belk, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-945-6000.

Respectfully submitted,



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